



## TEMPO Mixed SAMs: Electrocatalytic Efficiency versus Surface Coverage

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Auteur	Blanchard, Pierre-Yves [1], Alévêque, Olivier [2], Breton, Tony [3], Levillain, Eric [4]
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Résumé en anglais	<p>Electrocatalytic behavior of TEMPO derivative SAMs on gold has been studied in the presence of benzyl alcohol. The results demonstrate that interfacial activity of the SAMs can be enhanced by diluting the TEMPO moiety with an alkyl passive matrix. The absolute catalytic activity exhibits a maximum for an intermediate value of the surface coverage of catalytic centers. The most significant feature is the monotonic increase of the turnover (relative activity) until a limit value reached for low TEMPO surface concentrations. The electrocatalytic performances seem to be governed by a combination of two factors: the physical accessibility (by alcohol molecules in solution) and the regeneration (via the comproportionation of oxoammonium and hydroxylamine before electrochemical reoxidation) of the catalytic centers.</p>
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### Liens

- [1] [http://okina.univ-angers.fr/publications?f\[author\]=2508](http://okina.univ-angers.fr/publications?f[author]=2508)
- [2] <http://okina.univ-angers.fr/olivier.aleveque/publications>
- [3] <http://okina.univ-angers.fr/t.breton/publications>
- [4] <http://okina.univ-angers.fr/eric.levillain/publications>
- [5] <http://okina.univ-angers.fr/publications/ua2708>
- [6] <http://dx.doi.org/10.1021/la301403w>

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